DOCUMENT RESUME

ED 327 269 PS 018 974

AUTHOR Miller, Beth Midzik; Marx, Fern
TITLE Afterschool Arrangements in Middle Childhood: A Review of the Literature. Action Research Paper No. 2.
INSTITUTION Wellesley Coll., Mass. Center for Research on Women.; Yale Univ., New Haven, Conn. Bush Center in Child Development and Social Policy.
PUB DATE Jul 90
NOTE 44p.
AVAILABLE FROM SACC Publications, Wellesley College Center for Research on Women, Wellesley, MA 02181 ($6.50, plus $3.00 shipping and handling).
PUB TYPE Information Analyses (070)

EDRS PRICE MF01 Plus Postage. PC Not Available from EDRS.
DESCRIPTORS Definitions; *Educational Quality; Elementary Education; Elementary School Students; Emotional Experience; *Individual Development; *Latchkey Children; Literature Reviews; *Outcomes of Education; *Program Evaluation; Research Methodology; Research Needs; *School Age Day Care; Well Being

ABSTRACT

This paper reviews the literature on the effects of what children do with their time out of school and the impact of various care arrangements. Much of the research has focused on "latchkey children": children who care for themselves. In this paper, a summary of the research findings on the latchkey group is followed by a review of what is known about children in arrangements that are supervised by adults. Methodological limitations and disparate results preclude the drawing of definitive conclusions from the studies. In spite of this, the continued proliferation of school-age programs makes it imperative that current knowledge of child development and the effects of child care arrangements be used to define and measure the indicators of quality child care for school-age children. Sections concern: (1) research on school-age children; (2) children in self-care; (3) programs for children in self-care; (4) school-age child care programs; (5) definitions of program quality in school-age child care; and (6) lessons for program evaluation, including methodological issues and suggestions for future research. A list of 90 references is included. (RH)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

X This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

ED327269

SACC

Afterschool Arrangements in Middle Childhood: A Review of the Literature

Beth Midzik Miller • Fern Marx

Action Research Paper #2

PS 018974

"PERMISSION TO REPRODUCE THIS MATERIAL IN MICROFICHE ONLY HAS BEEN GRANTED BY

Beth M. Miller

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

School-Age Child Care Project
Wellesley College Center for Research on Women

SACC

School-Age Child Care Project
Action Research Papers

Since 1979 the School-Age Child Care Project of the Wellesley College Center for Research on Women has conducted research, designed workshops and conferences, developed publications and videotapes and provided technical assistance and consultation, all with the dual aim of expanding the supply and improving the quality of child care for school-age children across the United States. Our audience includes parents, employers, school personnel, policymakers, researchers, staffs of child care, youth-serving, and "latchkey" programs, and voluntary and women's organizations.

Action/Research Papers are produced on topics of special interest by members of our staff or by colleagues in the field who have expertise to share with our audience. They are designed to address timely issues in an in-depth fashion. Our goal is to get this information as rapidly as possible into the hands of those who will put it to use: the term "action/research" signifies that we expect the information we develop to become the basis for action by those in the field.

Action/Research Papers are priced individually and produced as needed. We welcome suggestions for future topics and invite queries by potential authors. All queries and suggestions, as well as orders for additional copies of this or other *Action/Research Papers*, or a listing of other resources available from the School-Age Child Care Project, should be addressed to: SACC Publications, Wellesley College Center for Research on Women, Wellesley, MA 02181.

Afterschool Arrangements in Middle Childhood: A Review of the Literature

Beth Midzik Miller
Fern Marx

ACTION RESEARCH PAPER #2
July 1990

Prepared for
The Bush Center on Child Development and Social Policy
Yale University

School-Age Child Care Project
Center for Research on Women
Wellesley College
Wellesley, MA 02181

About the Authors

Beth Midzik Miller is a Project Associate at the School-Age Child Care Project, Wellesley College Center for Research on Women and a doctoral student at the Heller School for Advanced Studies of Social Welfare Policy, Brandeis University.

Fern Marx is the Project Director of the Teen Parent Project and a Senior Project Associate for Research at the School-Age Child Care Project, Wellesley College Center for Research on Women.

INTRODUCTION

This paper reviews the literature on the effects on children of how they spend their time out of school, and the impact of various care arrangements. Which elements of such arrangements support a child's healthy development? Which may put children at risk? As more and more women have moved into the paid-labor force over the past two decades, more and more children are spending time in child care. Up to now, most policy, research, and media attention has focused on children under the age of 5. What happens when these day-care "graduates" move on to kindergarten or first grade at the age of 5 or 6? Many gaps remain between the hours children spend in the classroom and when their parents return from work.

Before and after school, during holidays and vacations, children of working parents spend their time in a wide variety of circumstances. Some will be enrolled in child-care programs at schools, community centers or preschool child-care centers; others will be at home, either alone or with older siblings. Others might be at a neighbor's, a family day-care home, or a neighborhood recreation center -- or perhaps "hanging out" on the streets.

The hours after school are far more crucial to children's development than the term "free time" may suggest. The school-age period, usually understood to span the ages 6 through 13, is full of change and growth when much of the groundwork is being laid for a healthy, fulfilling adulthood. Joan Bergstrom, a professor at Wheelock College, refers to children's time out of school as "one of the most precious commodities in the life of every child ... [it] is the essential fabric of childhood and the underpinning of adult life." (Bergstrom, 1984:8).

Younger school-age children are developmentally still close to their preschool peers (Bredekamp, 1987). They learn by doing (Piaget, 1950; Erikson, 1950). Play, the most potent form of active learning, contributes to the development of children's motivation, sense of competence, self-esteem, and problem-solving abilities (Rogers and Sawyers, 1988; Caplan and Caplan, 1973). Children in this age-group are just beginning to be able to step back from their own views and take the perspective of another person. They need close adult supervision to help them solve conflicts with their peers, safely negotiate their environment, and gain the literacy skills which open new worlds to them.

Children between the ages of about 7 and 12, during the Piagetian "concrete operations stage," or what Erikson termed "the stage of industry" (1950), grow increasingly interested in the product of their efforts. Their sense of self-worth is increasingly derived from their achievements, and, as the peer group grows in importance, from comparing themselves to others. Children of this age-group need to have friends, supportive adult role models, opportunities to make choices and explore their own interests, and first-hand learning experiences which help them to make sense of the world around them.

Toward the end of the school-age period, children enter early adolescence. They have an increasing desire for autonomy, and are ready to take on greater responsibility. This is often a turbulent period, as children attempt to cope with their rapidly changing bodies and the pressures from peers and society (Lefstein et al., 1982). Young adolescents are vulnerable to both negative and positive influences (Marx, 1989). They need to engage in meaningful participation in their community and take advantage of opportunities for positive interaction with peers and adults in order to realize the best in themselves (Center for Early Adolescence, 1985).

However, in the quest to grow up, it is important that children do not lose their opportunity to be children; to grow and explore without the pressures and expectations of the adult world. David Elkind, author of The Hurried Child, observes that:

> The pressure to grow up fast, to achieve early in the area of sports, academics, and social interaction, is very great in middle-class America. There is no room today for the "late bloomers" ... Children have to achieve success early or they are regarded as losers. (Elkind, 1981:17)

Garbarino notes that, as a result of this speed-up from childhood to adulthood, childhood is in danger of becoming a "luxury" in America (Garbarino, 1984). Children who are hurried into precocious maturity suffer from stress. Elkind (1981) attributes problems, ranging from adolescent suicide to psychosomatic complaints such as headaches, to this push to achieve and cope at an early age. Are children who are on their own after school (or expected to care for younger siblings) hurried children? Are they being given the chance to take on their developmental tasks at a healthy pace? A closer look at the research on school-age children may help to answer this question.

I. RESEARCH ON SCHOOL-AGE CHILDREN

The Census Bureau projects that by 1995, four out of five school-age children, or 35 million children, will have mothers who are employed. Yet little research has been focused on child care for school-age children. Several early studies compared children whose mothers were employed to those whose mothers were not. These studies generally found no differences between the two groups of children (Hoffman, 1974; Zambrana, Hurst, and Hite, 1979; Taveggia and Thomas, 1974; Moore, 1972; Hayes and Kamerman, 1983; Dunbar, 1985; Guidubaldi, Nastasi, Cleminshaw, Perry, 1986).

However, research on preschool children has highlighted the importance of examining children's care arrangements when assessing the impact of parental employment (Clarke-Stewart, 1987; Belsky and Steinberg, 1978). These studies found that quality of care received is generally more important in determining the outcome for children than the type of care. For example, the National Day Care Study (Ruopp, Travers, Glantz, Coelen, 1979) found that children developed well in centers with well-trained teachers where they were separated into smaller groups, and less well in centers where they spent the day in large groups supervised by teachers who were not specifically trained in child development.

Only a handful of studies of care arrangements for school-age children have been published over the last two decades. Most of this research is based on small samples and cross-sectional methodologies. During this same period, a variety of longitudinal research projects have established the positive impact of quality child care and early-childhood education programs on preschool children. Children have been shown to benefit in both cognitive and socioemotional development from opportunities which are highly cost-effective in the long run (Berrueta-Clement, Schweinhart, Epstein, and Weikart, 1984; Center for the Study of Public Policies for Young Children, 1982). No parallel longitudinal studies have yet been designed to discover whether participation in some type of organized school-age activity program can act as a preventive strategy against costs associated with rising rates of juvenile crime, pregnancy among young adolescents, or drug and alcohol abuse.

Although child care has been shown to be potentially beneficial to preschool-age children, it is not clear whether programs for older children will have a similar impact. Three major differences exist between the two age groups. Most importantly, as outlined above, the developmental needs of school-age

children differ from those of younger children. The indicators of quality defined by current research for preschoolers may not all hold true for older children. In addition, research on children over the age of 5 must take into account that school is an important mediating factor in their lives. The effects of a particular care arrangement may depend on, or interact with, specific factors associated with the school environment. Lately, since many school-age children take care of themselves and others attend tutorial, recreational, or enrichment programs, their types of care arrangements are not easily comparable with those of younger children.

Much of the research to date has focused on children who care for themselves, commonly known as "latchkey children." After summarizing these findings, we will review what is known about children in adult-supervised arrangements. Methodological limitations and disparate results preclude definitive conclusions from these studies. However, as the number of school-age programs continues to grow, it is imperative that we use our current knowledge of child development and the effects of child-care arrangements to begin to define and measure the indicators of quality child care for school-age children.

II. CHILDREN IN SELF-CARE

Children in self-care are not supervised by an adult during some or all of the hours between the end of school and the arrival home of their parents at the end of the day. Counting the number of latchkey children is difficult because there is no commonly accepted definition. Many arrangements may fall under the rubric of "self-care," including being cared for by a sibling, home alone in telephone contact with a parent, and out on the streets. One child in self-care might be locked alone in an apartment each day for many hours, while another stays home with a 16-year-old sister and plays with friends in the yard.

Estimates of the number of latchkey children vary a great deal -- from 2.1 million (U.S. Bureau of the Census, 1987) to 16 million (Children's Defense Fund, 1989) -- but no reliable, national data is available. What is clear is that the number of such children is growing, and along with it, the importance of assessing the effects on children's development. If only a fraction of latchkey children suffer bad consequences, that is still many children who may do worse in school, or have developmental, health, or other problems as a result of their experience.

As Joan Lipsitz, former director of the Center for Early Adolescence, points out, there are two different perspectives from which to view the issue of self-care:

> The so-called latchkey issue is narrow. It focuses our attention on risk and harm to young people and their communities. "Is harm being done?" is and must remain the most urgent question. It obscures, however, its important converse: "Are opportunities being lost?" (Quoted in Coolsen, Seligson, and Garbarino, 1985:3)

All of the research on self-care to date has focused on the former question. In some cases, it seems that children in self-care situations are not developing as well as those with consistent adult supervision. However, results are quite mixed, with some studies showing no differences between the two groups. In general, research projects conducted in urban areas have found that self-care and sibling care has negative effects (Woods, 1972; Entwisle, 1975; Long and Long, 1982), while similar surveys of rural and suburban children have tended to find no negative outcomes (Galambos and Garbarino, 1982; Vandell and Corasaniti, 1985).

A number of studies have focused on the effects of self-care on cognitive functioning and social adjustment (Woods, 1972; Gold and Andres, 1978, cited in

Long and Long, 1983; Galambos and Garbarino, 1982); children's fears (Zill, Gruvaeus, and Woyshner, 1977; Galambos and Garbarino, 1982; Long and Long, 1981; Hedin, Su, Hannesen, 1986); stress (Long and Long, 1983); play and peer relationships (Kuchak, Murphy, Altman, Brandis, Cosgrove, Saavedra, 1985; Zill et al., 1977); and the risk of abuse or accidents (Richardson, et al., 1989; Long and Long, 1983; Garbarino, 1980; Wellborn, 1981; Kuchak, et al., 1985; Zill et al., 1977; Finkelhor, 1979).

A comparatively recent development in research on self-care arrangements has been to examine the ecological context in which the child lives, including the family environment and the differential effects of various latchkey arrangements, such as hanging out on the streets, going home with an older sibling, or staying at a friend's house (Steinberg, 1986; Belle, 1988).

EFFECTS ON COGNITIVE DEVELOPMENT

Concern about the link between self-care and school performance seems to be on the rise. In a recent national survey of parents and teachers (Harris, 1988), a majority of teachers said that the major reason children have difficulty in school is that they are isolated and lack supervision after school. This problem was seen as more important in causing poor school performance than poverty, single-parent families, and families where both parents work. Of the parents surveyed, 41 percent said that their children were often alone between the end of the school day and 5:30 p.m. In addition, 59 percent of the parents surveyed said most or many parents leave their children on their own too much after school.

In one of the earliest studies of the effects of adult supervision on children of working parents, Woods sampled a group of 108 low-income, fifth-grade, black children from Philadelphia (Woods, 1972). The group was evenly divided between children who reported little or no supervision while their mothers worked, and those who had continuous care. Woods' sample contained significantly more unsupervised girls than boys. She found significant differences between the two groups of girls in academic achievement and school relationships. Unsupervised girls showed marked deficiency in cognitive functioning.

Woods also examined the effects of the mother's attitude towards her work and child-care roles, and the quality of the mother/child relationship. She found that these variables were positively related to the child's scholastic achievement, I.Q., and personality adjustment.

In one of the few suburban studies which did find some differences between self-care and adult-supervised children, Gold and Andres (1978, cited in Long and Long, 1983) studied 223 10-year-old Canadian children from intact two-parent families. Fifty-seven percent (N=128) of the mothers in this sample worked. An unusually low percentage (16 percent) of these children were unsupervised. Eighty percent of the unsupervised group were boys. Gold and Andres found that unsupervised boys scored consistently lower on all adjustment and academic achievement scores. Although this difference was not statistically significant, it held across all social classes.

EFFECTS ON SOCIAL AND EMOTIONAL DEVELOPMENT

The effects of latchkey arrangements on social and emotional development have been measured in a number of different ways. Some studies use psychological assessment instruments to measure variables such as locus of control, while others analyze children's responses to closed or open-ended questions on a survey. Still others ask parents or teachers to assess the development of their children or students.

Woods (1972), in the study mentioned above, examined the social adjustment and self-concept of the children in her study. Unsupervised girls had more problems with personal and social adjustment and a more depressed concept of self. One interesting finding was that children under consistent adult care were more self-reliant then those in self-care.

Rodman, Pratto, and Nelson (1985) compared 48 latchkey children with a matched comparison group in adult care. The sample consisted of 26 pairs of fourth-graders and 22 pairs of seventh-graders. On measures of social adjustment, self-esteem, and locus of control, no differences were found between the two groups. However, this study has been criticized for choosing dependent variables unlikely to be sensitive to the effects of self-care arrangements (Steinberg, 1986).

Perhaps the most commonly reported problem of children in self-care is the fears they have about what might happen while they are alone or entrusted to the care of an older sibling. A study by Long and Long (1981) interviewed 85 black parochial-school children between grades one to six in Washington, D.C. The children, who were equally divided by sex, showed elevated levels of fear among latchkey children as compared with children who received continuous adult supervision while their parent(s) worked (Long and Long, 1981). The number of

children in single-parent households was comparable to national statistics. One out of three children who cared for themselves and one out of five children cared for by siblings expressed high levels of fear. None of the children in adult care were found in this group. Children's self-ratings were confirmed by the interviewers, who reported that 38 percent of those home alone were in the high-fear groups, as compared with 13 percent of those in sibling care. No differences by sex were found.

Recurring nightmares appear to be prevalent among latchkey children. In Long and Long's study (1981), 40 percent of the children who routinely cared for themselves and 26 percent of those cared for by siblings reported being troubled by bad dreams. In contrast, fewer than one in three children under adult supervision expressed even moderate fears or indicated that they had frightening dreams. For about half of the adult-supervised children, the fears and nightmares occurred only when they were left alone. An interesting finding of this study was that children's relationship with their parents could mediate some of the effects of self-care; children who reported closer attachment to their parents tended to have fewer fears or bad dreams.

Children coped with their fears in several ways: by hiding; by turning the TV on loud to either distract themselves, drown out frightening noises, or warn intruders that someone was at home; by calling their parents frequently and/or turning on all the lights. Other children avoided going home and hung around school until late in the day.

It should be noted that the work by Long and Long, while receiving a great deal of publicity, has often been criticized in the scientific community. This is in part due to the fact that their results have not been published in journals which are subject to peer review. In regard to a 1985 survey, one review notes that, "It is unclear how children were selected for this study, what scientific procedures and controls were used, and what kinds of comparisons were made." (Robinson, Rowland, and Coleman, 1986:21). Other observers feel that Long and Long have tended to emphasize the negative outcomes of self-care.

In one of the few urban studies with a relatively large sample, the age of the child in self-care was the greatest predictor of children's fears (Rowland, Robinson, and Coleman, 1986). Of the parents surveyed, 51 percent of those who reported their children to be fearful and apprehensive about the latchkey arrangement had kindergarten-to-third graders.

Galambos and Garbarino's 1982 study of a group of fifth- and seventh-

grade students in a rural setting found that maternal employment status and level of supervision had no effect on children's fears of going outdoors alone (Galambos and Garbarino, 1982). The authors suggest that in the relative safety of the rural environment, children are permitted greater freedom, and this, in turn, leads to better adjustment. This finding is supported by Long and Long's study of suburban latchkey children (Long and Long, 1983). Elevated fear levels appear less frequent in affluent suburban settings. According to the authors, the perceived safety of the neighborhood may play a role in determining the impact of the latchkey experience. In a survey of parents and students in the Greater Minneapolis area, Hedin (Hedin et al., 1986) found that latchkey children living in urban areas have significantly more fears. Although 80 percent of the parents of all older children (defined as fourth-to-eighth grade) reported that they liked their self-care arrangements, 50 percent of low-income, urban, minority, and single parents did not like such arrangements at all.

Social relations may be affected as well. When children are required to lock themselves alone in the house every afternoon, peer contact is seriously constrained. For example, Long and Long (1981) report that 80 percent of those who were at home alone -- as well as 60 percent of boys and 30 percent of girls in sibling care -- were not permitted to have friends visit when their parents were away. Overall, 40 percent of the self-care children in this study were completely isolated -- they were neither permitted to play outdoors nor to socialize with friends. Those in sibling care fared only slightly better. One-third were confined indoors with only their siblings for playmates. These figures stand in sharp contrast to the restrictions imposed on children who had adult supervision. Ninety percent of adult-supervised children had unrestricted play and friendships.

The study commissioned in 1982 by the Administration for Children, Youth, and Families of the U.S. Department of Health and Human Services supports the Longs' findings (Kuchak, et al., 1985). This study addressed school-age child care practices of a representative sample of families in Virginia and Minnesota. Eighty-nine percent of the families surveyed in Virginia and 95 percent of the Minnesota families had special instructions for the time their school-age children spent without adult supervision. The most frequently mentioned ground rules or restrictions in both states consisted of not letting anyone in while alone, not having friends in, and not playing outside the yard or other restricted area.

In view of these restrictions, it is not surprising that the number-one complaint of children in self-care and sibling care is loneliness and boredom (Zill

et al., 1977). Zill and his associates found that this complaint was particularly prevalent among inner-city black children. In their analysis of children's call-in services in Tucson and Baltimore, Williams and Fosarelli (1987) found that loneliness and boredom accounted for 68 percent of the calls, followed by help with homework (8 percent), medical problems (3 percent), and fears (2 percent).

A recent study by Steinberg (1986) moves beyond the simple supervised/unsupervised dichotomy to examine the context of various arrangements. Steinberg wanted to examine the effects of care arrangements on susceptibility to peer pressure, based on research suggesting that susceptibility to pressure toward antisocial activity is a significant predictor of actual problem behavior. Most of the children in Steinberg's sample came from suburban areas, but they reflected a variety of socioeconomic levels. In a sample of 865 students between the grades of five and nine, no difference was found on reported susceptibility to peer pressure when results were analyzed on a dichotomous-dependent variable of self-care versus adult-care.

However, Steinberg extended this framework by utilizing the concept of distal supervision to divide the children in self-care into three major groups: unsupervised at home, unsupervised at a friend's home, and unsupervised on the streets. In addition to location, the sample was divided according to the level of knowledge parents had about their child's whereabouts.

Steinberg found that the children who spent time in arrangements more removed from their parents were more susceptible to peer pressure. Children who were "hanging out" on the streets indicated greater susceptibility than those who spent their afternoons at a friend's house, and these children were in turn more susceptible than those in their own home. For girls, susceptibility varied by location while for boys the amount parents knew about their whereabouts had the greatest impact.

EFFECTS ON PHYSICAL DEVELOPMENT AND WELL-BEING

Risks to physical development include inadequate exercise (due to being restricted to the house), accidents, use of drugs and alcohol, assault by siblings or strangers, and sexual victimization. Though little direct evidence exists on this topic, several studies suggest that those in self or sibling care may be more likely to experience such problems.

One of the most compelling arguments against self-care, even for older

children, comes from a recent survey of 4,932 eighth-grade students in southern California (Richardson, Dwyer, McGuigan, Hansen, Dent, Johnson, Sussman, Brannon, Flay, 1989). Compared to students who were under constant adult supervision, those who were in self-care for more than 10 hours per week were twice as likely to smoke cigarettes or drink alcohol, and nearly twice as likely to smoke marijuana. When the researchers controlled for factors believed to relate to substance abuse, including socioeconomic status, sex, race, extracurricular activities, stress, and academic achievement, the results remained the same. Children who cared for themselves between five and 10 hours per week were also more likely to have used these substances, though less at risk than the children on their own for more than 10 hours per week.

In addition to the student surveys, 2,185 parents, or 44.3 percent of the sample, filled out questionnaires which were used as checks on the validity of the children's self-reported behavior. Although children tended to report slightly more hours per week on their own than their parents, the relationship between self-care and substance abuse remained constant.

The researchers utilized path analysis to explain why self-care was associated with greater substance abuse. This statistical methodology indicated that risk-taking, having friends who smoke, and being offered cigarettes all mediate the relationship between self-care and substance use. The authors suggest that, "... the self-care situation causes early adolescents to perceive themselves as more autonomous, more mature, and more able to make decisions that may not be approved of by adults." (Richardson et al., 1989).

In their survey, Straus, Gelles, and Steinmetz found that physical assault by siblings is three times as frequent as assault by parents (1980). Zill reported that 40 percent of his sample had been bothered by older children and 13 percent by adults (Zill et al., 1977). One-third of these children were threatened by beatings and 13 percent were actually beaten. Finkelhor's study of sexual victimization found that 21 percent of the abuse reported by boys and 39 percent of the abuse reported by girls was perpetrated by siblings (Finkelhor, 1979). Since latchkey children are often in the care of siblings, these general findings have special significance for them. In Long and Long's study, children left in the care of siblings often complained of excessive fighting (Long and Long, 1983).

Although the incidence of break-ins and physical assaults by strangers is probably small, the trauma of such events is reflected in children's fear. A national survey of children found that their most prevalent fear was of intruders (Zill et

al., 1977). In Long and Long's study of urban children, one-third of self-care children and one-fifth of those in sibling care reported being afraid that someone might break into the house (Long and Long, 1981). In the survey by Hedin (Hedin, et al., 1986), over a third of those parents who reported being unhappy with their child's latchkey arrangements had specific concerns regarding their child's physical safety. These fears are not unfounded; in interviews with former latchkey children, more than half recalled having to deal with a serious emergency while they were unattended (Long and Long, 1983). Garbarino observed that unsupervised children are more likely to be victims of accidents, which are a leading cause of death among children (Garbarino, 1980). In 1981, U.S. News and World Report stated that one in six calls received by the Newark, N.J., fire department involved a child or children alone in the household (Wellborn, 1981).

By some measures, however, children in self-care seem to be as physically healthy as their peers. Williams and Boyce (1989) measured the obesity, number of visits to the school health office, and numbers of school days missed by 503 fifth-grade children in Tucson, Ariz., public schools. They found that the children in self-care arrangements were not significantly different from their peers in their ratings on these variables.

SUMMARY

Children in urban settings are more likely to report fears arising from the self-care situation (Long and Long, 1982). They also tend to score lower than adult-supervised urban children on tests of social and cognitive adjustment, and self-concept (Entwisle, 1975). Inner-city children are usually experiencing a more restrictive arrangement than their urban and rural peers, since they are often required to remain in the house, leading to a greater degree of isolation from other children in the neighborhood. This is not surprising given Medrich's (Medrich, Roizen, Rubin, and Buckley, 1982) finding that the physical safety and location of a neighborhood dramatically affect children's play patterns and freedom.

Risks also seem to be greater for younger children in self-care. Unfortunately, most of the studies conducted to date concern children at the older end of the school-age spectrum (Woods, 1972; Gold and Andres, 1978, cited in Long and Long, 1983; Rodman, Pratto, and Nelson, 1985; Galambos and Garbarino, 1982; Steinberg, 1986; Richardson et al., 1989). Despite the fact that self-care is more prevalent among children in the upper elementary grades, several recent studies

indicate that the incidence may be much higher among young children than commonly thought (Hedin et al., 1986; Williams and Fosarelli, 1987; Youngblade and Harris, 1987). The problems that these studies highlighted for older children may turn out to be a signpost, warning of the potentially much greater harm suffered by children as young as 6 and 7 who are caring for themselves.

It is the potential long-term effect of the self-care arrangement that raises the greatest concern; however, this is, as yet, the least identified. How does being on one's own at an early age relate to later well-being? Are bored latchkey children more likely to later join gangs or to become teenage parents? Or, conversely, does early experience with responsibility lead to later self-reliance, as measured by high school graduation or successful employment?

Some studies suggest that children in self-care are not suffering any harm, while others find elevated rates of fear, boredom, and even abuse among children caring for themselves and their siblings. It may be that it is not self-care per se, but rather an interaction between being on one's own, the family context, and the neighborhood environment, which determines the developmental outcomes for children.

It seems that in some cases, harm may be mediated by the family's approach to child-rearing (Long and Long, 1981; Steinberg, 1986; Richardson, et al., 1989). For example, Steinberg (1986) found that parenting style made a difference; those who had an authoritative approach (neither authoritarian nor permissive) seemed to have children who had internalized parental norms and values, and were more resistant to peer pressure. Richardson and her colleagues (1989) found that, despite the greater risk, most of the young adolescents in self-care were not engaging in substance abuse. They suggest that these children may have parents who check on them regularly, have more rules about what their children may do while home alone, and are more involved in their children's activities.

In summary, children who are most at risk are those who are younger, living in an urban neighborhood where they must be locked inside for hours each day, and who are not in close touch with their parents. However, in the debate over "harm or no harm" from self-care, we must not forget the need to pay attention to lost opportunities. The question must not only be "are children surviving?" but also "are they thriving?"

III. PROGRAMS FOR CHILDREN IN SELF-CARE

In response to concerns about the well-being of latchkey children, several types of programs have arisen. The most well-known are school-age child-care programs, which will be reviewed in the following section. However, another strategy has been to design programs to support the child in self-care, such as courses on "survival skills" or hotlines which children can call to speak to an adult. These are recent alternatives which have yet to be extensively evaluated, but a few studies are available.

The only three publications on the call-in lines, often called "warmlines," included a description of program start-up (Guerney and Moore, 1983), a process evaluation which details the number and type of calls received (Williams and Fosarelli, 1987), and a survey of awareness of the hotline in the surrounding community (Harris and Youngblade, 1987). No study was designed to measure the effects of this service on children in self-care. However, it is interesting to note that 35 percent of the randomly selected parents in the Harris and Youngblade survey reported that their children, at a median age of 8, were in self-care or sibling care. Williams and Fosarelli found that 31 percent of the callers under the age of 5 and 49 percent of those between the ages of 6 and 8 reported that no adult was present in the house at the time of their call to the hotline. These findings suggest that research on the effects of self-care should include much younger children in the sample than has usually been the case.

Another strategy has been the development of courses designed to give children the skills and confidence to stay home alone. An evaluation of a five-part program attended by both children and parents (Gray, 1986) found that a sample of 600 parents and 1,000 children improved their communication with each other. Children's confidence in their ability to handle emergencies increased, and parents created more rules for their children during time in self-care. At the same time, a sentence-completion exercise, designed to determine the specific types of preparation the children would like their parents to provide, "... instead highlighted the fact that the children wanted their parents' physical or telephone presence" (Gray and Coolsen, 1987:32). More than 80 percent of the children finished the sentence "When I am home alone, I wish Mom and Dad ..." with either "... would come home" or "... would call."

Gray and Coolsen describe the latchkey children as ambivalent about their

situation. The children reported feeling frightened, lonely, and bored; yet at the same time said they gained a sense of accomplishment and independence from handling things on their own. Perhaps the most telling outcome of the study was the fact that, as a result of the course, more families reduced or stopped using a latchkey arrangement than initiated one.

IV. SCHOOL-AGE CHILD-CARE PROGRAMS

School-age child-care programs are specifically designed to provide adult supervision and care for children between the ages of 5 and 13 during those hours when school is not in session. As women have entered the labor force in ever-greater numbers, thousands of such programs have sprung up around the country. Many programs are run as partnerships, often with the school serving as host to an community agency. However, a wide variety of models can be found, including programs run by Y's, child-care centers, public and private schools, parent organizations, and youth groups. Most of the children attending school-age child-care programs are between the ages of 5 and 10 (although some programs have been created specifically for young adolescents).

As a relatively recent phenomenon, school-age child care has not yet received much attention from the research community. In the past few years, several surveys of school-age child-care programs have gathered descriptive information on a wide range of topics, such as staff training and turnover; number, age range, and demographics of the children served; curriculum content; program goals; and hours and days of operation (Hebard and Horowitz, 1986; Weaver, 1988; Seligson and Marx, 1989; Marx, 1989; Huling, 1985). Although they do not provide information on the developmental outcomes of school-age child care, these process evaluations are an important first step in the research literature. They provide a picture of "the state of the art," a sense of how programs vary and what they have in common.

For example, a recent survey of school-age child-care programs in New York City (Seligson and Marx, 1989) found that group size varied from five to 50 children. The number of children per staff member ranged from one care-giver for every six children to one for every 40. In general, the programs with the best staff/child ratios also paid their staff the least and had the highest turnover.

Other evaluations have measured how well the program is succeeding in the eyes of parents, staff, and/or administrators (Weaver, 1988; Goldfine and Wagner, 1987; Hebard and Horowitz, 1986; Epstein and Maragos in Dunbar, 1985; Stewart, 1981; Davis and Solomon, 1980; Pittman, 1987; Marshall, Marx, Seligson, 1989).

For example, Pittman surveyed a sample of teachers, parents, and support staff of 33 school-age child-care programs in the Dade County, Fla., school system. The evaluation was designed to gauge agreement between these groups on the goals

and quality of the programs during their first year of pilot operation (Pittman, 1986). All groups agreed on the general purpose of the programs: to serve working parents and provide children with recreational activities which would enhance their social development and self-esteem. Unfortunately, the only result reported regarding program quality is that, "... the quality of the after-school care program was unanimously judged to be of high caliber" (Pittman, 1986:53).

Another evaluation concerns a program designed to serve boys between the ages of 10 and 17 with behavior problems. Field trips, group therapy, and academic remediation are part of the curriculum. The researchers report program success based on high attendance rates and satisfaction with the youths' progress on the part of both parents and teachers (Dunbar, 1985).

A local study in New York City utilized staff surveys and observations to assess program implementation in a sample of new school-age child-care programs (Hebard and Horowitz, 1986). Staff reported that the children benefitted from the program both socially and academically. They felt that many children had developed a more positive attitude toward school and increased their level of scholastic work; 62 percent felt that social behavior had improved, and 65 percent reported that participants had improved their social skills. Staff were most unhappy about shortages of equipment, staff, and space; problems with school custodians; long waiting lists; and parents' tardiness in picking up children.

Most of these studies have found a high level of satisfaction on the part of all parties. Such surveys can also help to pinpoint where changes need to be made. However, due to the lack of a comparison group, it is not possible to draw conclusions about the effects of school-age child care from surveys of satisfaction.

A final category of studies, known as outcome evaluations, compare school-age child-care programs with other types of arrangements for the children of working parents (Entwisle, 1975; Sheley, 1980; Mayesky, 1980a; Mayesky 1980b; Howes, Olenick, and Der-Kiureghian, 1987; Vandell and Corasaniti, 1988). These comparisons have the potential to pinpoint the developmental effects of participation in a school-age child-care program, and are described in greater detail below.

EFFECTS ON COGNITIVE DEVELOPMENT

In one of the earliest studies of children who received center-based care after school, Entwisle found that program children (N=40) improved their grades

in reading and arithmetic over a six-month period significantly more than a matched comparison group (N=15) not receiving program services (Entwisle, 1975). Boys improved more than girls, although girls tended to receive better grades than boys in both arithmetic and conduct.

An unexpected finding was that the improvement of the older boys (grades four to six) was equal to or greater than that of the younger boys (grades one to three). It should be noted that the program was not a tutorial or remedial program, but provided primarily recreational and cultural activities. The gains made by these Baltimore children were considered particularly impressive since disadvantaged children have been found to enter school at lower levels of cognitive development than more advantaged children and to fall further behind over the course of their educational careers.

The Baltimore study also found that program attendance among girls was positively associated with an improved attitude toward school; among boys, toward education in general. Program attendance among older boys was also associated with improved marks in conduct. One explanation offered for the improvement in attitude and conduct among boys was the positive role model provided by male program staff. The author notes that although the findings are generally positive, they should be interpreted with caution due to the small sample size and the lack of an adequate comparison group for the older children.

A more recent study of a before- and after-school day-care program in a public urban elementary school in Raleigh, N.C., corroborates the Baltimore findings (Mayesky, 1980a; 1980b). Mayesky designed a school-age child-care program while serving as the principal of a school in a predominantly black neighborhood. The idea was to provide a high-quality, stimulating environment for children at a low cost to their working parents, and thereby attract white families to the school as part of a desegregation plan.

The program, which provides curriculum enrichment activities as well as cultural and recreational activities, has been able to also demonstrate its effectiveness in raising the academic achievement levels of program participants. The average scores on statewide math and reading tests of program participants were found to be significantly higher than those of a matched group of nonparticipating peers over several consecutive academic years, and the gap between these two groups widened over time.

Sheley (1984) evaluated the effects of a tutorial program for elementary-school children in a Southern inner-city area. Two matched comparison groups of

36 children were tested for improvement in math and reading skills. Program children scored significantly better in math and somewhat better in reading, with females exhibiting more improvement than males. Long-term program students showed greater success than short-term students. It is possible that the difference in results is due to program design; students receive individual tutoring in math but work on reading in small groups. This study suggests that academic performance can be enhanced for urban children through an after-school tutorial program.

In one of the few studies to compare children in a variety of supervised and unsupervised settings, Vandell and Corasaniti (1988) compared third-graders from a middle-class suburb on sociometric, conduct, and academic variables. A total of 147 children were divided according to four possible arrangements: returning home after school to their mother; attending a day care center; returning home to be cared for by a sitter; and returning home alone or with siblings. This study revealed that adult supervision alone does not guarantee healthy developmental growth. Children who attended day-care centers were found to have lower grades and lower standardized-test scores than mother-care, sitter, or latchkey children.

The authors speculate that this result may be due to the stigma attached to attending day care (the children were picked up after school by vans with the center logo) or possibly the poor quality of the day-care centers, which were proprietary operations which "... typically had a large number of children, a small staff with minimal training, and limited age-appropriate activities" (Vandell and Corasaniti, 1988:18).

EFFECTS ON SOCIAL AND EMOTIONAL DEVELOPMENT

In the study of third-graders mentioned above (Vandell and Corasaniti, 1988), classroom sociometric nominations, conduct grades, self-reports of self-competence, and parent and teacher ratings were measured, as well as academic performance. No significant differences were found between groups of children on most conduct grades, or on teacher and self-concept ratings. However, children who attended day-care centers and those who stayed with baby-sitters after school received more negative peer nominations than either latchkey children or those who returned home to their mother after school. In addition, parents rated the day-care children as having poorer peer relationships than mother-care children, and they tended to have somewhat lower conduct grades.

In their recent study of kindergarten children, Howes, Olenick, and Der-Kiureghian (1987) compared children who attended only a morning program with children who attended both the morning session and a high-quality after-school program. Using sociometric measures, they found that children in the after-school program were more popular with their peers than the control group of morning-only participants. The authors speculate that "... the supplementary social experiences provided with classmates in the after-school program and the program's emphasis on social-emotional development may have contributed to the popularity of the children in the after-school program." (P.100.)

Enrollment in the Baltimore program evaluated by Entwisle (1975) was associated with enhanced self-esteem among both boys and girls. In addition, older program girls showed significant improvement in their attitudes toward authority.

SUMMARY

Participation in a school-age child-care program may be beneficial to a child. Programs have been effective in increasing the academic competence of children (Entwisle, 1975; Mayesky 1980a; Sheley, 1984) as well their social skills (Howes, et al., 1987; Entwisle, 1975).

Entwisle's finding that children improved their attitudes toward authority while in the program suggests that school-age child care may serve to decrease later anti-social activity, such as juvenile delinquency and substance abuse. Such evidence is corroborated by the studies by Steinberg (1986) and Richardson (Richardson, et al., 1989), which found that children who spend time on their own without adult supervision are more likely to be susceptible to peer pressure and to be users of drugs and alcohol.

Yet simply attending a program is not enough, as pointed out by Vandell and Corasaniti's study (1988). Children must be in an environment which promotes their development and cared for by staff with an understanding of children's needs and ability to provide for them. The next section looks more in depth at the question of quality in school-age child care.

V. DEFINING PROGRAM QUALITY IN SCHOOL-AGE CHILD CARE

What is quality school-age child care? Which aspects of programs lead to positive developmental outcomes? What can these studies tell us about program quality? Although these questions are not directly addressed in the literature cited above, two of the studies (Mayesky, 1980; Howes, Olenick, and Der-Kiureghian, 1987) describe the curricula of programs found to have benefitted the children they served. These programs were carefully designed with the children's developmental needs in mind. For instance, Mayesky (1980a), states that:

> The basic framework underlying the extended day curriculum was based on the learning theories of Bloom and Piaget. In essence, the program components were designed to meet the three levels of learning in Bloom's taxonomy: cognitive, affective, and psychomotor ... Piaget's theory provided the rationale for the activity-based curriculum. (P. 21.)

Teachers trained in art, physical education, math, science, and language arts designed activities for these learning centers which allowed children to experiment with materials and concepts. "Children had the opportunity of trying, possibly failing, and eventually ... successfully grasping a concept." (P. 22.) Learning was integrated. For example, the children not only played soccer, but also learned about the history of the game, and wrote and illustrated stories about the game. In addition to the learning centers, children had the opportunity to participate in special activities such as languages, weaving, drama, dance, and karate. As noted above, the children who attended this program scored better than their non-program peers on achievement tests of math and reading. This study did not compare the children on measures of social or emotional development.

Howes, Olenick, and Der-Kiureghian (1987) examined the complementarity between the morning and afternoon programs which they studied. The authors found that the morning program focused on academic skill-building, while the afternoon program provided opportunities for sensorimotor activities, art, and music. There was a high level of continuity between the two programs in regard to teaching behaviors, children's time with peers, and the level of play observed.

In the absence of empirical research which compares the effects of school-age child-care programs, a tacit agreement has developed in the field regarding principles of developmentally appropriate practice. For example, the National

Association for Young Children accredits programs serving children up to the age of 8 which meet elaborate criteria for quality care (NAEYC, 1988). In general, a high-quality school-age child-care program is one which supports children in accomplishing the developmental tasks of middle childhood which were outlined in first section of this review.

Unlike schools, school-age child-care programs are not constrained by a need to stress cognitive development or to cover a particular curriculum. Nor do they have to judge students' performance according to predetermined criteria. Given the proper training and supervision, staff in a school-age child-care program are free to implement developmentally appropriate practice, providing integrated learning experiences for children.

For example, in one program in which the author was involved, children spent two weeks exploring the theme of "weather," during which they built a weather balloon, took daily temperature and barometric pressure readings and charted their results, had a paper airplane-flying contest, sang weather songs, took a trip to a local weather station, and wrote stories about hurricanes and tornadoes.

Learning centers or areas are another approach to "whole child" learning. Programs may include a science center outfitted with such items as microscopes, ant farms, and magnets, an art area with materials on hand which the children can explore on their own, a theater for dramatic productions, and so on.

Over the past 15 years, the rapidly expanding field of school-age child care has developed a professional identity and concepts of quality (Baden, Genser, Levine, and Seligson, 1982; Prescott and Milich, 1974; Bender, Elder, and Flatter, 1984; Bergstrom, 1984). Quality programs support the development of children by allowing them to make choices and take risks, leading to the development and pursuit of their own interests. In fact, Barbara Bowman of the Erikson Institute once stated that a good school-age child-care program is one which "promotes a hobby for every child." (Bowman, 1988.) Figure 1 outlines some specific ways in which school-age child-care programs can meet the physical, cognitive, social, and emotional needs of children, while Figure 2 describes the components of a high-quality school-age child-care program.

At the Center for Early Adolescence in North Carolina (1985), criteria have been developed specifically to assess the quality of care in programs for 10- to 15-year-olds. Good programs are defined as those which provide opportunities for: 1) positive interactions with peers and adults; 2) meaningful participation; 3) competence and achievement; 4) self-exploration and definition; 5) a role in

creating rules and clear limits to follow; 6) physical activity; and 7) flexibility to accommodate the extraordinarily diverse and fast-changing needs of young people in this age group.

While these definitions of quality are helpful to practitioners, research on school-age child care has not yet focused on comparing school-age child-care programs. For example, are children in centers with smaller groups and fewer children per care-giver doing better in school or in their social relationships? At the same time, research does suggest that children may benefit from high-quality child-care programs (Mayesky, 1980a and 1980b; Howes et al., 1987; Entwisle, 1975) and experience negative outcomes from low-quality programs (Vandell and Corasaniti, 1988).

Although not definitive, these findings are congruent with a great deal of the research on programs for preschool-aged children. This younger age group has been the subject of several large-scale studies of program quality which have come to the same conclusion: good child care can enhance children's development, but poor quality child care may have detrimental effects (Ruopp, Travers, Glantz, Coelen, 1979; Whitebook, Howes, Phillips, 1989; Phillips, Scarr, and McCartney, 1987).

In order to develop high-quality programs, it is important to know which program components are linked to good outcomes for children. Although the developmental needs of school-age children differ from those in the preschool years, it is helpful to look at studies of this age group to get a sense of some possible indicators of quality. The decade-old National Day Care Study (Ruopp et al., 1979), still the most comprehensive and representative research of its kind, focused on components which can be legislated. It found that small group size, care-giver training in child development, and, to a lesser extent, high adult-child ratios were the most powerful predictors of positive outcomes for children. Other studies have also found that small group sizes and more staff per child result in better language development (Howes and Rubenstein, 1985; Peterson and Peterson, 1986) and social development (Phillips, McCartney, and Scarr, 1987).

Other research, focused on the child-care provider, has found that training in child development is linked to the care-giver's ability to provide stimulating experiences, responsiveness to children, and positive effect on disposition (Stallings and Porter, 1980; Ruopp, et al., 1979; Howes, 1983; Clarke-Stewart and Gruber, 1984). Most recently, the National Child Care Staffing Study (Whitebook, Howes, and Phillips, 1989) found that higher staff wages were associated with better care

for children.

The issue of provider stability is also a subject of research. Preliminary investigations suggest that a high turnover in care-givers may have detrimental effects on children's development (Howes and Stewart, 1986), and care-givers who are committed to a career working with children provide higher quality care than those who view child care as a temporary job (Berk, 1985). Care-giver stability is related to children's adjustment (Cummings, 1980), time engaged with peers, and children's language skills (Whitebook, Howes, and Phillips, 1989).

Very little child-care research has investigated the different types of center-based care, which include programs sponsored by churches, non-profit organizations, for-profit chains, and for-profit independent proprietors. The National Child Care Staffing Study (Whitebook, Howes, and Phillips, 1989) found that non-profit centers had better staff/child ratios and more teaching staff in the classroom with higher levels of training, formal education and experience, than for-profit centers of both types. In addition, the providers in non-profit centers engaged children in more developmentally appropriate activities, and provided better supervision with more adult-child interaction and developmentally appropriate disciplinary techniques. These results are interesting in light of the fact that the children studied by Vandell and Corasaniti (1988), who were enrolled in a for-profit chain day-care program, were rated lower on measures of social and cognitive adjustment, while the children who were subjects of studies of school-based nonprofit programs (Entwisle, 1975; Howes et al., 1987; Mayesky, 1980a) had positive outcomes associated with their participation.

VI. LESSONS FOR PROGRAM EVALUATION: METHODOLOGICAL ISSUES AND SUGGESTIONS FOR FUTURE RESEARCH

The rapid proliferation of programs, and growing public and professional interest in the care of children after school, have far outpaced the field's research capacity. The handful of studies which exist largely compare the effects of unsupervised children with children under adult supervision, to determine what harm, if any, results from the latchkey arrangement. As this review has shown, results are mixed, and because of methodological problems and small study size, generalizability is limited. Nonetheless, the findings of existing research raise important questions and provide guidance for future directions in research.

The following discussion focuses on four areas for future research: the context or ecology of the child-care arrangement; the interplay of child-care arrangements and child development over time; the effects of different programmatic approaches on child outcomes; and the effects of high-quality practice on child outcomes (Powell, 1987).

Steinberg (1986) has shown the need to look beyond the simple self-care/adult care dichotomy to examine in greater detail the context of the situation in which the child-care arrangement occurs. School-age children do not live in isolation. They are part of a family, school and community. In order to understand the full impact of a given child-care arrangement it is necessary to consider the type of social and physical environments within which subgroups of children and their families live. Research must be guided by the recognition that there is no single dominant family form and that demographic differences among families will influence their choice of child-care arrangements, satisfaction with these arrangements, and the impact of the arrangement on child and family outcomes (Robinson, Coleman, and Rowland, 1986). See Figure 3 for a hypothetical research model.

Of particular importance in understanding the impact of different care arrangements are mediating variables, including: the character of the parent-child relationship; parental attitudes towards work; style of child-rearing; and the quality-of-life indicators of both the neighborhood and community. Another mediating factor often forgotten is the characteristics of the school attended by the child, since school-age children spend the majority of the day in this setting. If our research on the effects of different types of child-care arrangements is to

begin to answer what is best for children, other contextual variables must be taken into consideration, including: the number of hours the child is in a given arrangement; the length of time the child has been in the arrangement; the age at which the child began the arrangement; and whether the care selected is the result of choice or lack of other options.

Steinberg (1986) has led the way in using multi-variate analysis to differentiate the independent variable of "unsupervised" into a more precise definition of the nature of the supervisory environment. We also need to become more precise in defining just what supervision means. Studies must go beyond the all-encompassing term "adult supervision" to describe whether the care-giver is a baby-sitter, a parent, a sibling, or a day-care professional. Differentiation between self-care and sibling care, with careful attention to the age of the sibling, is also called for. The lack of clear definitions of key independent and mediating variables and the absence of contextual variables makes comparison between different studies difficult, and reduces the opportunity to engage in any type of meta-analysis.

Many of the existing studies of the effects of various child-care arrangements have focused on children age 9 and above, yet some children begin caring for themselves at earlier ages. Of equal importance is the increasing use of child care from infancy onward. It is crucial for research studies to include these variables in measuring the effects of the child-care arrangements on the child's developmental process. Perhaps it is in this context that the absence of longitudinal research is most visible. To date, only Belle's (1988) study has the potential to sort out causal paths between dependent child development variables and care arrangements, and trace these effects over time. There is an urgent need to design longitudinal studies, both large- and small-scale, to follow school-age children to assess the positive and negative aspects of their development. These studies must include attention to major contextual variables as well as behavioral outcome variables. A multi-method approach should be used in both large- and small-scale studies, including observation, self-report and interviews of children, family members, teachers, and, where applicable, program providers. The use of this type of approach will not only yield more sophisticated data, but also will lead to a better understanding of the dynamics of different care arrangements.

There has been much concern in the field regarding the inability of researchers to randomly assign children to a given child-care arrangement. Some researchers feel that this fact may invalidate the results of existing studies due to

self-selection bias. While ethical practice may constrain random assignment, there remain other approaches to constructing comparison groups which can overcome many of the threats to validity. Perhaps more important than the absence of random assignment is the fact that most of the studies completed to date used nonprobability sampling procedures to recruit relatively small samples. Clearly, nonprobability samples do not encourage generalizability, nor do small samples permit accurate or meaningful statistical analysis. If we are to understand differences in child outcomes, we need to continue to conduct carefully constructed small-scale studies as well as large-scale studies, using randomly selected samples drawn from well-defined populations to ensure that the results are representative of the larger population. This type of large-scale study is particularly important in comparing the effects of different approaches to caring for children during the after-school hours. Reaching beyond the dichotomy of supervised/unsupervised leads us to evaluating the benefits of telephone hotlines, parent-child self-care training programs, formal care in structured programs, etc.

Powell (1987) points out that if the policy agenda for after-school child care follows the pattern of pre-school child care, the key issue in forthcoming years will be determining the indicators of program quality. The field is developing so rapidly that it is imperative to conduct systematic research on those program characteristics which are supportive of positive child and family outcomes. The field is just beginning to develop program standards through accreditation and state licensing procedures. Yet relatively little is known empirically regarding which levels of child/adult ratios, group size, care-giver characteristics, and parent involvement are most supportive of positive social adjustment and cognitive development. A recently approved large-scale provider survey and case studies sponsored by the U.S. Department of Education should provide important descriptive information regarding the range and prevalence of certain program and client characteristics.

In order to move to the next step, the measurement of program effects and program goals must be carefully delineated. While Figure 4 lists some of the outcome measures which have been utilized or suggested by previous research, each program must define the purpose of the program in terms of those measurable goals it seeks to effect. Thus, for example, one program may be designed to change intellectual and social competence, another may have as its primary focus changes in health status or family function. It is only by combining information on quality indicators with outcome measures, while controlling for contextual and other

variables over time, that we will begin to be able to determine the effect of our efforts on child development and family functioning.

FIGURE 1

CHARACTERISTICS OF SCHOOL-AGE CHILD CARE PROGRAMS
WHICH MEET CHILDREN'S DEVELOPMENTAL NEEDS

I. Physical Needs

Safe, secure space
Daily nutritious snack
Opportunity for small motor play with a wide variety of materials
Opportunity for gross motor play, both inside and outside
Spaces designed for privacy
Opportunities to build skills, such as batting or kicking
Freedom to move about most of the time
Opportunity to develop interests in physical activities,
such as dancing or team sports

II. Cognitive Needs

Opportunity daily for small group and individual activities
Wide variety of materials and games to explore
Frequent opportunities for conversations with peers and adults
Curriculum in areas including art, science, theater, construction, etc.
Involvement in program planning
Opportunity to build real-world skills
Opportunity to develop hobbies, pursue interests
Field trips to local and other areas and places of interest
Curricula which complements the child's school day

III. Social and Emotional Needs

Opportunities for unstructured time with peers and adults
Opportunities to make choices
Help with peer conflicts
Involvement in the community
Respect for the child's cultural and racial heritage
A regular schedule, allowing for flexibility
Regular communication between staff and parents
Positive, individual attention
Increasing opportunities for independence
Opportunity to spend time alone
Creative exploration of a number of materials and areas
Small group cooperative activities

FIGURE 2

COMPONENTS OF A HIGH QUALITY SCHOOL-AGE CHILD CARE PROGRAM

A trained staff, skilled in the activities enjoyed by school-age children.

A safe space, both indoors and outside, which can be designed to meet their physical, emotional, and social needs.

A wide variety of materials appropriate to the ages of the children in care.

A written regular schedule of activities, including some daily routines and some long-term projects.

Daily opportunities for large and small group play, as well as privacy, if desired.

Parental involvement in the program.

Opportunities for children to choose activities and pursue their interests.

Curriculum and staffing which reflects the racial and cultural heritage of the children in care.

Involvement of children in the local community.

An emotional climate characterized by positive interaction of staff with children.

FIGURE 3

HYPOTHETICAL RESEARCH MODEL

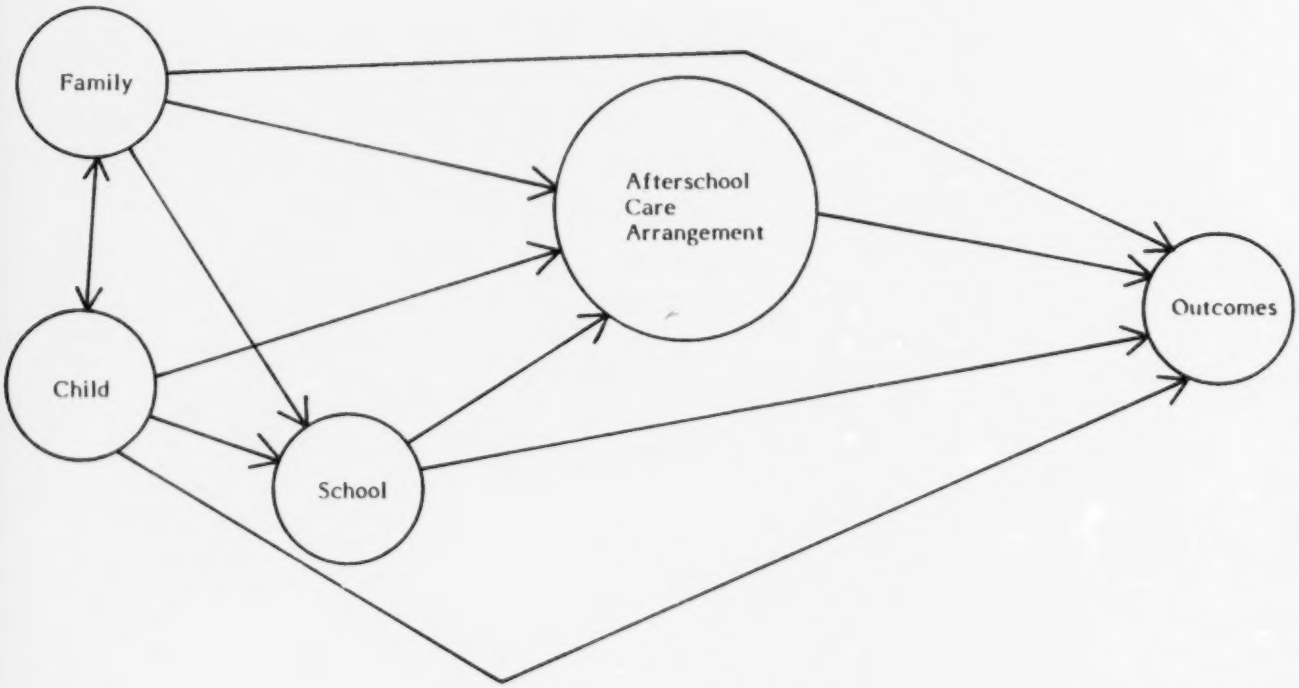

FIGURE 4

OUTCOME MEASURES

Academic Achievement
- Standardized-test scores
- Grades in school
- Attitudes toward school

Social Competence
- Self-rating on scales
- Ratings by teachers, care-givers, parents
- Sociometric testing
- Program observations by researchers

Behavioral Adjustment
- Ratings on susceptibility to peer pressure
- Locus-of-control scores
- Behavior ratings by care-givers, parents, teachers, self
- Observations of behavior in program

Family Outcomes
- Level of stress
- Parental competence
- Changes in income
- Global measures of family functioning

REFERENCES

Ainslie, R.C. (Ed.) (1984). *The child and the daycare setting.* New York: Praeger.

Baden, R., Genser, A., Levine, J., and Seligson, M. (1982). *School-age child care: An action manual.* Boston, MA: Auburn House.

Belle, D. (1988). *Social support processes among latchkey and adult supervised children.* Unpublished report, Boston University, Boston, MA.

Belsky, J., and Steinberg, L. (1978). The effects of day care. *Child Development, 49,* 929-949.

Bender, J., Elder, B., and Flatter, C. (1984). *Half a childhood: Time for school-age child care.* Nashville, TN: School Age Notes.

Bergstrom, J. (1984). *School's out -- Now what? Creative choices for your child.* Berkeley, CA: Ten Speed Press.

Berk, L. (1985). Relationships of educational attainment, child-oriented attitudes, job satisfaction, and career commitment to care-giver behavior toward children. *Child Care Quarterly, 14,* 103-129.

Berrueta-Clement, J., Schweinhart, L., Barnett, W.S., Epstein, A, and Weikart, D. (1984). Changed lives: The effects of the Perry Preschool on youths through age 19. *Monographs of the High/Scope Educational Research Foundation, 8.* Ypsilanti, Michigan: High/Scope Press.

Bowman, B. (1988). Personal Communication.

Bredekamp, S. (Ed.). (1987). *Developmentally appropriate practice in early childhood programs serving children from birth through age 8.* (Expanded Edition). Washington, D.C.: National Association for the Education of Young Children.

Caplan, F. and Caplan, T. (1973) *The Power of Play.* New York: Anchor Press/Doubleday.

Center for the Study of Public Policies for Young Children, High/Scope Educational Research Foundation. *The cost-effectiveness of high quality early childhood programs: A report for the 1982 Southern Governors' Conference.* Prepared by C. Breedlove and L. F. Schweinhart to supplement the presentation of D. P. Weikart on July 6, 1982.

Center on Early Adolescence. (1985). *3:00 - 6:00pm: Planning programs for young adolescents.* Chapel Hill, NC: University of North Carolina.

Children's Defense Fund. (1982). *Employed parents and their children: A data book.* Washington, D.C.: Author.

Children's Defense Fund. (1989). *A vision for America's future.* Washington, D.C.: Author.

Clarke-Stewart, A. and Gruber, C. (1984). Day care forms and features. In R.C. Ainslie (Ed.), *The Child and the Daycare Setting.* New York: Praeger.

Clarke-Stewart, A. (1987). In search of consistencies in child care research. In D. Phillips (Ed.), *Quality in child care: What does research tell us?* Research Monographs of the National Association for the Education of Young Children, Volume 1. Washington, D.C.: National Association for the Education of Young Children.

Coolsen, P., Seligson, M. and Garbarino, J. (1985). *When school's out and nobody's home.* Chicago: National Committee for Prevention of Child Abuse.

Cummings, E.H. (1980). Caregiver stability and day care. *Developmental Psychology, 16,* 31-37.

Davis, J., and Solomn, P. (September/October 1980). Day care needs among the upper middle classes. *Child Welfare, 59,* 497-499.

Dunbar, B.A. (1985). *After-school programs for school-age children and parents: A review of the research.* (ERIC Document Reproduction Service, ED 272 305).

Elkind, D. (1981). *The hurried child: Growing up too fast too soon.* Reading, MA: Addison-Wesley Publishing Co.

Entwistle, B. (September, 1975). *Evaluating Baltimore City's School-Age Day Care Program: Results of a Pilot Study.* Unpublished paper. Brown University, Providence, RI.

Erikson, E. (1950). *Childhood and society.* New York: Norton.

Finkelhor, D. (1979). *Sexually victimized children.* New York: Free Press.

Galambos, D.L. and Garbarino, J. (1982). *Identifying the missing links in the study of latchkey children.* Paper presented to American Psychological Association, Washington, D.C.

Garbarino, J. (November, 1980). Latchkey Children: Getting the Short End of the Stick? *Vital Issues, 30,* No. 3.

Garbarino, J. (1982). *Children and families in the social environment.* New York: Aldine Publishing Company.

Garbarino, J. (1984). *Can American families afford the luxury of childhood?* Unpublished manuscript, Pennsylvania State University, Department of Individual and Family Studies, University Park, PA.

Gold, D. and Andres, D. (March, 1978). Developmental comparisons between ten-year-old children with employed and nonemployed mothers. *Child Development, 49,* 75-84, as cited by Long and Long, 1983.

Goldfine, E., and Wagner, M. (1987). A study of the effectiveness of a new latchkey program in Middletown Township, New Jersey. Unpublished manuscript. (Study not completed).

Gray, E. (1986). *The modern dilemma of latchkey children: A report of the balancing work and family project.* (Working Paper No. 30). Chicago: National Committee for Prevention of Child Abuse.

Gray, E. and Coolsen, P. (July-August 1987). How do kids really feel about being home alone? *Children Today, 16*, 30-32.

Guerney, L. and Moore, L. (July-August 1983). PhoneFriend: A prevention-oriented service for latchkey children. *Children Today, 12*, 5-10.

Guidubaldi, J., Nastasi, B., Cleminshaw, H., Perry, J. (August, 1986). *Maternal employment and child adjustment: Results of a nationwide study.* Paper presented at the Annual Convention of the American Psychological Association, Washington, D.C.

Harris and Associates, Inc. (1987). *The American teacher, 1987: Strengthening links between home and school.* Metropolitan Life Survey. New York: Author.

Hayes, C.D. and Kamerman, S.B. (Eds.). (1983). *Children of working parents: Experiences and outcomes.* Washington, D.C.: National Academy Press.

Hebard, A. and Horowitz, S. (1986). *Final evaluation of the 1985-86 After-School Program.* New York: New York City Public Schools, Office of Educational Assessment.

Hedin, D., Su, S., and Hannesen, K. (1981). *The child's view of self-care.* (ERIC Document Reproduction Service, ED 211 229).

Hoffman, L. (1974). Effects of maternal employment on the child: A review of the research. *Developmental Psychology, 10*, 204-228.

Howes, C. (1983). Caregiver behavior in center and family day care. *Journal of Applied Developmental Psychology, 4*, 99-107.

Howes, C. and Rubenstein, J. (1985). Determinants of toddlers' experience in daycare: Age of entry and quality of setting. *Child Care Quarterly, 14*, 140-151.

Howes, C. and Stewart, P. (1986). Child's play with adults, toys and peers: An examination of family and child-care influences. *Developmental Psychology, 23*, 423-430.

Howes, C., Olenick, M. and Der-Kiureghian, T. (September 1987). After-school child care in an elementary school: Social development and continuity and complementarity of programs. *The Elementary School Journal, 88*, 93-103.

Huling, T. (1985). *School age child care: What next?* New York: Neighborhood Family Services Coalition.

Kuchak, J., Murphy, M., Altman, A., Brandis, M., Cosgrove, M., Saavedra, P. (1985). *School age day care study.* Final report to the Administration for Children, Youth and Families. Silver Springs, MD: Applied Management Sciences, Inc. (ERIC Document Reproduction Services No. ED 242 411).

Lefstein, L., Kerewsky, W., Medrich, E., and Frank, C. (1982). *3:00 to 6:00 PM: Young adolescents at home and in the community.* North Carolina: Center for Early Adolescence.

Long, T. and Long, L. (1981). *Latchkey children: The child's view of self care.* Washington, D.C.: Catholic University. (ERIC Document Reproduction Service, ED 211 229).

Long, L. and Long, T. (1983). *Latchkey children.* Washington, D.C.: Catholic University. (ERIC Document Reproduction Service, ED 226 836).

Marshall, N., Marx, F., and Seligson, M. (1989). *Challenges facing Boston families: The need for school-age child care.* Prepared for Parents United for Child Care and the Wellesley College Center for Research on Women.

Marx, F. (1989). *After school programs for low-income young adolescents: Overview and program profiles.* (Working Paper No. 194). Wellesley, MA: Wellesley College Center for Research on Women.

Mayesky, M.E. (February 1980a). *Differences in academic growth as measured in an extended day program in a public elementary school.* Paper presented at the Annual Conference of the American Association of School Administrators. (ERIC Document Reproduction Service, ED 184 675).

Mayesky, M. E. (December 1980b). A study of academic effectiveness in a public school day care program. *Phi Delta Kappan, 62,* 284-285.

Medrich, E., Roizen, J., Rubin, V., and Buckley, S. (1982). *The serious business of growing up: A study of children's lives outside school.* Berkeley, CA: University of California.

Moore, S. (November 1978). Working mothers and their children. *Young Children, 33,*77-82.

National Academy of Early Childhood Programs (1985). *Guide to Accreditation.* Washington, D.C.: National Association for the Education of Young Children.

Peterson, C., and Peterson, R. (1986). Parent-child interaction and daycare: Does quality of daycare matter? *Journal of Applied Developmental Psychology, 7,* 1-15.

Phillips, D. (Ed.). *Quality in child care: What does research tell us?* Research Monographs of the National Association for the Education of Young Children, Volume 1. Washington, D.C.: National Association for the Education of Young Children.

Phillips, D., McCartney, K., and Scarr, S. (1987). Child-care quality and children's social development. *Developmental Psychology, 23,* 537-543.

Phillips, D., Scarr, S., and McCartney, K. (1987). Dimensions and effects of child care quality: The Bermuda Study. In D. Phillips (Ed.) *Quality in Child Care: What Does Research Tell Us?* Research Monographs of the National Association for the Education of Young Children, Volume 1. Washington, D.C.: National Association for the Education of Young Children.

Piaget, J. (1950). *The psychology of intelligence.* London: Routledge and Paul.

Pittman, J. (Spring, 1987). Development and assessment of an after-school care program in a large urban school district. *Community Education Research Digest. 1*, 46-57.

Prescott, E. and Milich, C. (1974). *School's out! Group day care for the school age child.* Pasadena, CA: Pacific Oaks College.

Richardson, J., Dwyer, K., McGuigan, K., Hansen, W., Dent, C., Johnson, C.A., Sussman, S., Brannon, B. (1989). Substance use among eighth graders who take care of themselves after school. *Pediatrics, 84*(3), 556-566.

Robinson, B., Rowland, B., and Coleman, M. (1986). *Latchkey kids: Unlocking doors for children and their families.* Lexington, MA: Lexington Books.

Rodman, P., Pratto, D.J., and Nelson, S. (1985). Child care arrangements and children's functioning: A comparison of self-care and adult-care children. *Developmental Psychology, 21*, 413-418.

Rogers, C. and Sawyers, J. (1988). *Play in the lives of children.* Washington, D.C.: National Association for the Education of Young Children.

Roupp, R., Travers, J., Glantz, F., and Coelen, C. (1979). *Children at the center: Summary findings and their implications.* Final Report of the National Day Care Study. Cambridge, MA: Abt Associates, Inc.

Seligson, M. (Fall, 1989). Models of school-age child care: A review of the research and practice. *International Women's Studies Forum*, in press.

Seligson, M. and Marx, F. (1989). *When school is out in New York City: A study of available resources for school-age children when school is not in session.* New York: The Community Service Society.

Sheley, J. (April, 1984). Evaluation of the centralized, structured, after-school tutorial. *Journal of Educational Research. 77*, 213-217.

Stallings, J., and Porter, A. (June, 1980). *National day care home study: Observation component.* Final Report of the National Day Care Home Study, Vol. III. Washington, D.C.: Department of Health, Education, and Welfare.

Steinberg, L. (1986). Latchkey children and susceptibility to peer pressure: An ecological analysis. *Developmental Psychology, 22*, 433-439.

Stewart, M. (1981). *Children in self-care: An exploratory study.* Greensboro, N.C.: University of North Carolina. (ERIC Document Reproduction Service, ED 224 604).

Straus, M., Gelles, R., and Steinmetz, S. (1980). *Behind closed doors: Violence in the American family.* New York: Doubleday.

Taveggia, T. and Thomas, E. (January, 1974). Latchkey children. *Pacific Sociological Review, 17*, 27-34.

U.S. Department of Commerce, Bureau of the Census (December, 1984). *Current population reports: After-school care of school-age children.* Special studies series P-23, No. 149. Washington, DC: U.S. Government Printing Office.

U.S. Department of Commerce, Bureau of the Census. (May, 1987). *Who's minding the kids? Child care arrangements: Winter 1984-85.* Current Population Reports, Household Economic Studies Series No. 970. Washington, D.C.: U.S. Government Printing Office.

U.S. Department of Health and Human Services (1981). *National study of the incidence and severity of child abuse and neglect: Study findings.* (as cited by Long and Long, 1983).

U.S. Department of Justice, Federal Bureau of Investigation (1981). *Uniform crime reports for the United States.* Washington, D.C.: U.S. Government Printing Office.

Vandell, D. and Corasiniti, M.A. (1985). *The relation between third graders' after school care and social, academic, and emotional functioning.* Paper presented at the annual meeting of the American Association for the Advancement of Science.

Weaver, M. (August, 1988). Personal communication regarding the evaluation of the Prince George's County Public School Extended Day Program, Prince George's County, MD.

Wellborn, S.N. (September 14, 1981). When school kids come home to an empty house. *U.S. News and World Report*, 47.

Whitebook, M., Howes, C., and Phillips, D. (1989) *Who cares? Child care teachers and the quality of care in America.* Executive Summary of the National Child Care Staffing Study, in press.

Williams, R. and Fosarelli, P. (September, 1987). Telephone call-in services for children in self-care. *American Journal of Diseases of Children, 141*, 965-968.

Williams, R. and Boyce, W.T. (January, 1989). Health status of children in self-care. *American Journal of Diseases of Children, 143*, 112-115.

Woods, M.B. (1972). The unsupervised child of the working mother. *Developmental Psychology, 6*, 14-25.

Youngblade, L., and Harris, V. (December 1986). *Phonefriend evaluation report.* Unpublished paper.

Zambrana, R., Hurst, M., and Hite, R. (December 1979). The working mother in contemporary perspective: A review of the literature. *Pediatrics, 64*, 862-870.

Zill, N., Gruvaeus, G., and Woyshner, K. (1977). *Kids, parents and interviewers: Three points of view on a national sample of children.* New York: Foundation for Child Development.